30th International Cosmic Ray Conference



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Calibration of the CREAM-I calorimeter

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Abstract content

The Cosmic Ray Energetics And Mass (CREAM) calorimeter is designed to measure the spectra of cosmic-ray particles over the energy range from ~10^12 eV to ~10^15 eV. Its first flight as part of the CREAM-I balloon-borne payload in Antarctica during the 2004/05 season resulted in a record breaking 42 days of exposure to the cosmic radiation. A few iterations of the calibration using various beam test data will be discussed in an attempt to assess the uncertainties of the energy measurements. Results from various supporting laboratory tests will also be discussed, such as trigger noise and gain linearity, which resulted in important corrections factors to the energy reconstruction.

If this papers is presented for a collaboration, please specify the collaboration

The CREAM Collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 2 (OG part 1), pages 421-424

Primary author(s): Mr. YOON, Y. S. (Dept. of Physics and IPST, University of Maryland)

Presenter(s): Mr. YOON, Y. S. (Dept. of Physics and IPST, University of Maryland)

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